

In the Claims:

1. (Currently Amended) A control system for an automotive vehicle having a steering actuator comprising:

a plurality of sensors generating a plurality of signals corresponding to a ~~dynamic condition~~ measured vehicle conditions of the vehicle; and

a controller coupled to the plurality of sensors, said controller determining a lateral force in response to the measured vehicle conditions, determining a slip angle in response to measured vehicle conditions, determining a first steering actuator angle change to decrease the slip angle until the lateral force increases, thereafter, determining a second steering actuator angle change to increase the slip angle until the lateral force decreases.

2. (Previously Presented) A system as recited in claim 1 wherein said steering actuator comprises a front right wheel actuator and a front left wheel actuator.

3. (Previously Presented) A system as recited in claim 2 wherein said front right wheel steering actuator and said front left steering actuator are independently controllable.

4. (Previously Presented) A system as recited in claim 3 wherein said controller generates a front right control signal and a front left control signal in determining a first steering actuator angle change and determining a second steering actuator angle change.

5. (Previously Presented) A system as recited in claim 1 wherein said steering actuator comprises a rear steering actuator and a front steering actuator.

6. (Previously Presented) A system as recited in claim 1 wherein said controller determines a rear steering control signal in determining a first steering actuator angle change and determining a second steering actuator angle change.

7. (Original) A method of controlling a vehicle having a steering actuator comprising:

determining a lateral force in response to measured vehicle conditions;

determining a slip angle in response to measured vehicle conditions;

determining a first steering actuator angle change to decrease the slip angle until the lateral force increases;

controlling the steering actuator in response to the first steering actuator change angle;

thereafter, determining a second steering actuator angle change to increase the slip angle until the lateral force decreases; and

controlling the steering actuator in response to the second steering actuator change angle.

8. (Original) A method as recited in claim 7 wherein determining a first steering actuator angle change to decrease the slip angle until the lateral force increases is performed independent of a handwheel position.

9. (Original) A method as recited in claim 7 wherein controlling the steering actuator in response to the first steering actuator change angle and controlling the steering actuator in response to the second steering actuator change angle comprises controlling a front steering actuator.

10. (Original) A method as recited in claim 7 wherein controlling the steering actuator in response to the first steering actuator change angle and controlling the steering actuator in response to the second steering actuator change angle comprises controlling a rear steering actuator.

11. (Original) A method as recited in claim 7 wherein controlling the steering actuator in response to the first steering actuator change angle and controlling the steering actuator in response to the second steering actuator change angle comprises controlling a front right steering actuator.

12. (Original) A method as recited in claim 7 wherein controlling the steering actuator in response to the first steering actuator change angle and controlling the steering actuator in response to the second steering actuator change angle comprises controlling a front left steering actuator.

13. (Currently Amended) A method of controlling a vehicle having a steering actuator comprising:

determining a lateral force in response to measured vehicle conditions;

and

controlling the steering actuator in response to the lateral force to maximize the lateral force by changing a steering angle to increase the lateral force until the lateral force decreases, then changing the steering angle until the lateral force increases.

14. (Original) A method as recited in claim 13 wherein controlling the steering actuator comprises changing a slip angle to maximize the lateral force.

15. (Cancelled)